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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/824,780

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Thomas A. Gentles

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SCHWEGMAN, LUNDBERG & WOESSNER/WMS GAMING

P.O. BOX 2938

MINNEAPOLIS, MN 55402

EXAMINER

D'AGOSTINO, PAUL ANTHONY

ART UNIT

PAPER NUMBER

3714

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/824,780	Applicant(s) GENTLES ET AL.	
	Examiner Paul A. D'Agostino	Art Unit 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-43 and 51-65 is/are pending in the application.
- 4a) Of the above claim(s) 13 and 44-50 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-43, and 51-65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/8/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This responds to Applicant's Arguments/Remarks filed 08/08/2007. Claims 1, 4, 10, 14, 16-23, 24, 27, and 29 have been amended, Claims 13 and 44-50 have been cancelled, and Claims 51-65 have been newly added. As a result, Claims 1-12, 14-43, and 51-65 are now pending in this application.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1 – 12, 14-17, and 19 – 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Pub. No. 2001/0044339 to Cordero et al. (Cordero) in view of U.S. Patent Pub. No. 2006/0059253 to Goodman et al. (Goodman).

In Reference to Claims 1, 4, 10, 12, 14, 17, 23-24, 27, and 29

Cordero discloses a gaming apparatus operatively connectable through a communication network to a gaming system server including at least one gaming terminal, operable to execute game software (para. 0007; where multiplayer game play is provided over a network), a secure communication apparatus, communicatively coupled to the gaming terminal and server, and operable to provide network access control for gaming information exchanged between the gaming terminal and server, and a communication network (para. 0012), an access control apparatus, communicatively coupled to the gaming terminal and server, and operable to prevent unauthorized access or malicious code access to gaming information within the gaming terminal or server (para. 0055; where players are granted or denied access based on player identification), and at least one integrity apparatus, communicatively coupled to the gaming terminal, and operable to ensure integrity of the gaming information within the

gaming terminal and server (para. 0037; where a backup server is available to ensure the integrity of game system data).

However, Cordero is silent on a system whereby the integrity apparatus operable to at least detect deviations, outside of a pre-selected boundary, in an existing state of the gaming information from a baseline state of the gaming information within the gaming terminal, and to report the detected deviations for acceptance and associated update of the baseline state or for remedial action to return the gaming information to the baseline state.

Goodman teaches of netcentric computing systems (Title) whereby data is measured against a baseline for unauthorized changes and to query and report on network changes ("Data gathered by the network/systems management tools 804 can provide a baseline to measure against unauthorized changes. In this case, the query design of the change control components 914 should include the ability to perform ad-hoc or pre-determined queries, which can report on specific network management changes. Data gathered by network/systems management tools 804 (UNIX, VMS, MVS, etc.) can be utilized to monitor systems once a change has taken place. In this case, errors or system degradation in a change can be detected. A design consideration for the change control components 914 in this area would be to develop an interface with the systems management tools in which system performance degradation can be tracked and reported." para. 804; for acceptance and for remedial action are statements of intended use which the system of Goodman is capable of performing) in order to "provide a combination of tools, support services, procedures

and controls that are required to keep a production system up and running well.” (para. 708).

In Reference to Claims 2, 5, 11, 15, 25, 28

Cordero discloses a gaming apparatus wherein the secure communication apparatus is operable to exchange gaming information and prevent unauthorized access to game information that is selected from a group of information types, using an integrity apparatus, that includes the game software, game configuration data, game play data, game performance data, server- determined game outcomes, gaming device operations software, maintenance information, security data, player data, marketing data, operations data, accounting data, electronic fund transfer data, and wagering account transfer data (para. 0055; where players are granted or denied access to game software services based on player identification).

In Reference to Claims 3 and 26

Cordero discloses a gaming apparatus including at least one user interface selected from a group of user interfaces that includes a control panel, buttons, a coin acceptor, a note acceptor, one or more electro-mechanical reels, a keypad, one or more speakers, a card reader, a card reader display, a video display, a keyboard, a graphical interface unit display, a monitor, a printer, a modem, a tape drive, a digital Video disk drive, and a compact disk drive. (para. 0009; where multiple types of client systems,

such as personal computers, games console systems, or personal digital assistants, each incorporating one or more of the above features may be used).

In Reference to Claims 6-7 and 30-33

Cordero discloses a gaming apparatus wherein the secure communication apparatus is further operable to execute virtual private network application software and implement a virtual private network tunneling protocol (para. 0037) and includes a public network (para. 0010; where a virtual private network may be used over a public network, such as the Internet).

In Reference to Claims 8-9 and 16

Cordero discloses a gaming apparatus wherein the secure communication apparatus includes one or more firewalls and execute a cryptographic method to ensure integrity of the gaming information and implement an authentication protocol to prevent unauthorized access to an encryption key (para: 0035; where protected systems use firewalls and security encryption algorithms to restrict access and defeat unauthorized access).

In Reference to Claims 19-22

Cordero discloses a gaming apparatus wherein the first integrity apparatus is further operable monitor gaming information for deviations from one or more expected baselines, detect vulnerabilities in the gaming terminal, alter operations of the gaming

terminal in response to detection of corrupt data or failure of the gaming terminal (para. 0073; where a number of system failures and breakdowns are accommodated by a system).

In Reference to Claims 34 and 41

Cordero discloses a gaming system wherein the cryptographic protocol is selected from a group that includes a message authentication code protocol, a one-way hash protocol, a public-key cryptography protocol, a digital signature protocol, a symmetric encryption protocol, and a random number generator protocol (para. 0052; where message identification is used to verify identity).

In Reference to Claims 35-36

Cordero discloses a gaming system wherein the firewall includes a programmable network processor and an adaptive computing C integrated circuit (para. 0035; where a firewall work s with a protected computer, which may be a highly developed adaptive computing integrated circuit system).

In Reference to Claims 37-38

Cordero discloses a gaming system wherein each of the first access control apparatus and the second access control apparatus include at least one access control element, wherein the at least one access control element is selected from a group that includes a person authentication protocol, a software authentication protocol, a person

authorization protocol, and an administration method (para. 0055; where a person identified and authenticated).

In Reference to Claims 39-40

Cordero discloses a gaming system wherein the person authentication protocol is selected from a group that includes a username authentication protocol, a password authentication protocol, a biometric authentication protocol, and an access token authentication protocol (para. 0055; where a person identified and authenticated via an ID access token).

In Reference to Claims 42-43

Cordero discloses a gaming system wherein each of the first integrity apparatus and the second integrity apparatus include at least one integrity element, wherein the at least one integrity element is selected from a group that includes an antivirus software, an antivirus scanner, an intrusion detection system, a data integrity system, an incident response protocol, a security management protocol, a vulnerability assessment protocol, and an authentication protocol (para. 0035; where each server is protected by an integrity apparatus including a security management firewall).

5. Claims 18 and 51-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Pub. No. 2001/0044339 to Cordero et al. (Cordero) and U.S. Patent

Pub. No. 2006/0059253 to Goodman et al. (Goodman) further in view of U.S. Patent No. 6,468,155 of Zucker et al. (Zucker).

Cordero as modified by Goodman discloses a system substantially equivalent to Applicant's claimed invention wherein a gaming apparatus with a first integrity apparatus (para. 0037; where a backup server is available to ensure the integrity of game system data). However, Cordero as modified by Goodman fails to disclose wherein the integrity apparatus is further operable to determine whether the detected deviations are valid, wherein if the integrity apparatus determines that the detected deviations are valid, the integrity apparatus is operable to report the detected deviations for acceptance and associated update of the baseline state, and wherein if the integrity apparatus determines that the detected deviations are not valid, the integrity apparatus is operable to report the detected deviations for remedial action to return the gaming information to the baseline state; wherein the integrity apparatus includes one or more vulnerability assessment scanners operable to check settings of the gaming terminal and to determine whether the settings are consistent with a pre-selected gaming security policy; and wherein the integrity apparatus includes one or more vulnerability assessment scanners operable to simulate behavior of an attacker to identify vulnerabilities in the gaming terminal.

Zucker teaches a security system which is further operable to detect intrusive network packets received by the gaming terminal (col. 7 lins. 4 – 9 “The game controller 1100 may incorporate various elements to make sure that the game system 102 is safe and secure for both the game provider and players. For example, network and systems

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security may be provided via: a dual fire-wall to create layered security; intrusion detection software; and strict access control on all servers.”); wherein a determination of whether detected variations are valid or invalid and wherein the integrity apparatus includes one or more vulnerability assessment scanners operable to check settings of the gaming terminal and to determine whether the settings are consistent with a pre-selected gaming security policy; and wherein the integrity apparatus includes one or more vulnerability assessment scanners operable to simulate behavior of an attacker to identify vulnerabilities in the gaming terminal (col. 9 lines 30-36 “The game design is then evaluated at 620. And game design may be evaluated, for example, by a number of expert game designers who estimate a level of skill required to play the game. The game design may also be evaluated to determine a susceptibility of the game to the use of automated game playing devices 260”; also, “The release of the game may also be evaluated, for example, with respect to risk management. That is, the game provider may carefully monitor players' prize awards and the winning frequency to identify suspicious player performance or an overly generous prize payout. Automatic triggers (a.k.a. vulnerability assessment scanners) may notify the game provider of risky results, and may even temporarily lock out a player or shut down a game until the game provider can investigate. By way of example only, players may be prevented from winning a top prize (e.g. one million dollars) more than once” and Game design and modification methods cols. 13-15) in order to provide notifications of unauthorized access and increase security of a gaming system.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the secure electronic gaming system as taught by Zucker into the teachings of Cordero as modified by Goodman in order to provide notifications of unauthorized access and increase security of a gaming system.

Response to Arguments

6. Applicant's arguments with respect to Claims 1-12, 14-43, and 51-65 have been considered but are moot in view of the new ground(s) of rejection. The combination of Goodman and Zucker render obvious the claim amendments relative to the integrity apparatus and management of detected deviations from a baseline for compliance to security policy or system vulnerability.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is provided in the Notice of References Cited.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

9. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. D'Agostino whose telephone number is (571)270-1992. The examiner can be reached on Monday - Friday, 7:30 a.m. - 5:00 p.m..

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John M. Hotaling, II can be reached on (571) 272-4437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/John M Hotaling II/
Primary Examiner, Art Unit 3714

/Paul A. D'Agostino/
Examiner, Art Unit 3714
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